

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/864,955DATE: 03/16/98  
TIME: 17:05:50

INPUT SET: S24135.raw

This Raw Listing contains the General  
Information Section and up to the first 5 pages.

## SEQUENCE LISTING

## (1) General Information:

- (i) APPLICANT: Cold Spring Harbor Laboratory
- (ii) TITLE OF INVENTION: Novel Human cdc25 Genes, Encoded  
Products and Uses Thereof
- (iii) NUMBER OF SEQUENCES: 31
- (iv) CORRESPONDENCE ADDRESS:
- (A) ADDRESSEE: FOLEY, HOAG & ELIOT LLP
  - (B) STREET: ONE POST OFFICE SQUARE
  - (C) CITY: Boston
  - (D) STATE: Massachusetts
  - (E) COUNTRY: U.S.A.
  - (F) ZIP: 02109
- (v) COMPUTER READABLE FORM:
- (A) MEDIUM TYPE: Floppy disk
  - (B) COMPUTER: IBM PC compatible
  - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
  - (D) SOFTWARE: ASCII(text)
- (vi) CURRENT APPLICATION DATA:
- (A) APPLICATION NUMBER: 08/864,955
  - (B) FILING DATE: 29 MAY 1997
  - (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
- (A) NAME: Vincent, Matthew P.
  - (B) REGISTRATION NUMBER: 36,709
  - (C) REFERENCE/DOCKET NUMBER: MIV-019.05
- (ix) TELECOMMUNICATION INFORMATION:
- (A) TELEPHONE: 617-832-1242
  - (B) TELEFAX: 617-832-7000

## (2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2419 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double

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47          (D) TOPOLOGY: linear
48
49      (ii) MOLECULE TYPE: DNA (genomic)
50
51      (ix) FEATURE:
52          (A) NAME/KEY: CDS
53          (B) LOCATION: 460..2031
54
55      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
56
57      CGAAAGGCCG GCCTTGGCTG CGACAGCCTG GGTAAGAGGT GTAGGTCGGC TTGGTTTTCT      60
58
59      GCTACCCGGA GCTGGGCAAG CGGGTTGGGA GAACAGCGAA GACAGCGTGA GCCTGGGCCG      120
60
61      TTGCCTCGAG GCTCTCGCCC GGCTTCTCTT GCCGACCCGC CACGTTTGTT TGGATTTAAT      180
62
63      CTTACAGCTG GTTGCCGGCG CCCGCCCGCC CGCTGGCCTC GCGGTGTGAG AGGGAAGCAC      240
64
65      CCGTGCCTGT GGCTGGTGGC TGGCGCCTGG AGGGTCCGCA CACCCGCCCG GCCGCGCCGC      300
66
67      TTTGCCCGCG GCAGCCGCGT CCCTGAACCG CGGAGTCGTG TTTGTGTTTG ACCCGCGGGC      360
68
69      GCCGGTGGCG CGCGGCCGAG GCCGGTGTCT GCGGGGCGGG GCGGTCGCGG CGGAGGCAGA      420
70
71      GGAAGAGGGA GCGGGAGCTC TGCGAGGCCG GCGCGCCGCC ATG GAA CTG GGC CCG      474
72                                     Met Glu Leu Gly Pro
73                                     1           5
74
75      AGC CCC GCA CCG CGC CGC CTG CTC TTC GCC TGC AGC CCC CCT CCC GCG      522
76      Ser Pro Ala Pro Arg Arg Leu Leu Phe Ala Cys Ser Pro Pro Pro Ala
77                                     10           15           20
78
79      TCG CAG CCC GTC GTG AAG GCG CTA TTT GGC GCT TCA GCC GCC GGG GGA      570
80      Ser Gln Pro Val Val Lys Ala Leu Phe Gly Ala Ser Ala Ala Gly Gly
81                                     25           30           35
82
83      CTG TCG CCT GTC ACC AAC CTG ACC GTC ACT ATG GAC CAG CTG CAG GGT      618
84      Leu Ser Pro Val Thr Asn Leu Thr Val Thr Met Asp Gln Leu Gln Gly
85                                     40           45           50
86
87      CTG GGC AGT GAT TAT GAG CAA CCA CTG GAG GTG AAG AAC AAC AGT AAT      666
88      Leu Gly Ser Asp Tyr Glu Gln Pro Leu Glu Val Lys Asn Asn Ser Asn
89      55           60           65
90
91      CTG CAG AGA ATG GGC TCC TCC GAG TCA ACA GAT TCA GGT TTC TGT CTA      714
92      Leu Gln Arg Met Gly Ser Ser Glu Ser Thr Asp Ser Gly Phe Cys Leu
93      70           75           80           85
94
95      GAT TCT CCT GGG CCA TTG GAC AGT AAA GAA AAC CTT GAA AAT CCT ATG      762
96      Asp Ser Pro Gly Pro Leu Asp Ser Lys Glu Asn Leu Glu Asn Pro Met
97      90           95           100
98
99      AGA AGA ATA CAT TCC CTA CCT CAA AAG CTG TTG GGA TGT AGT CCA GCT      810
  
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100	Arg Arg Ile His Ser Leu Pro Gln Lys Leu Leu Gly Cys Ser Pro Ala	
101	105 110 115	
102		
103	CTG AAG AGG AGC CAT TCT GAT TCT CTT GAC CAT GAC ATC TTT CAG CTC	858
104	Leu Lys Arg Ser His Ser Asp Ser Leu Asp His Asp Ile Phe Gln Leu	
105	120 125 130	
106		
107	ATC GAC CCA GAT GAG AAC AAG GAA AAT GAA GCC TTT GAG TTT AAG AAG	906
108	Ile Asp Pro Asp Glu Asn Lys Glu Asn Glu Ala Phe Glu Phe Lys Lys	
109	135 140 145	
110		
111	CCA GTA AGA CCT GTA TCT CGT GGC TGC CTG CAC TCT CAT GGA CTC CAG	954
112	Pro Val Arg Pro Val Ser Arg Gly Cys Leu His Ser His Gly Leu Gln	
113	150 155 160 165	
114		
115	GAG GGT AAA GAT CTC TTC ACA CAG AGG CAG AAC TCT GCC CAG CTC GGA	1002
116	Glu Gly Lys Asp Leu Phe Thr Gln Arg Gln Asn Ser Ala Gln Leu Gly	
117	170 175 180	
118		
119	ATG CTT TCC TCA AAT GAA AGA GAT AGC AGT GAA CCA GGG AAT TTC ATT	1050
120	Met Leu Ser Ser Asn Glu Arg Asp Ser Ser Glu Pro Gly Asn Phe Ile	
121	185 190 195	
122		
123	CCT CTT TTT ACA CCC CAG TCA CCT GTG ACA GCC ACT TTG TCT GAT GAG	1098
124	Pro Leu Phe Thr Pro Gln Ser Pro Val Thr Ala Thr Leu Ser Asp Glu	
125	200 205 210	
126		
127	GAT GAT GGC TTC GTG GAC CTT CTC GAT GGA GAG AAT CTG AAG AAT GAG	1146
128	Asp Asp Gly Phe Val Asp Leu Leu Asp Gly Glu Asn Leu Lys Asn Glu	
129	215 220 225	
130		
131	GAG GAG ACC CCC TCG TGC ATG GCA AGC CTC TGG ACA GCT CCT CTC GTC	1194
132	Glu Glu Thr Pro Ser Cys Met Ala Ser Leu Trp Thr Ala Pro Leu Val	
133	230 235 240 245	
134		
135	ATG AGA ACT ACA AAC CTT GAC AAC CGA TGC AAG CTG TTT GAC TCC CCT	1242
136	Met Arg Thr Thr Asn Leu Asp Asn Arg Cys Lys Leu Phe Asp Ser Pro	
137	250 255 260	
138		
139	TCC CTG TGT AGC TCC AGC ACT CGG TCA GTG TTG AAG AGA CCA GAA CGT	1290
140	Ser Leu Cys Ser Ser Ser Thr Arg Ser Val Leu Lys Arg Pro Glu Arg	
141	265 270 275	
142		
143	TCT CAA GAG GAG TCT CCA CCT GGA AGT ACA AAG AGG AGG AAG AGC ATG	1338
144	Ser Gln Glu Glu Ser Pro Pro Gly Ser Thr Lys Arg Arg Lys Ser Met	
145	280 285 290	
146		
147	TCT GGG GCC AGC CCC AAA GAG TCA ACT AAT CCA GAG AAG GCC CAT GAG	1386
148	Ser Gly Ala Ser Pro Lys Glu Ser Thr Asn Pro Glu Lys Ala His Glu	
149	295 300 305	
150		
151	ACT CTT CAT CAG TCT TTA TCC CTG GCA TCT TCC CCC AAA GGA ACC ATT	1434
152	Thr Leu His Gln Ser Leu Ser Leu Ala Ser Ser Pro Lys Gly Thr Ile	

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	310	315	320	325	
153					
154					
155	GAG AAC ATT TTG GAC AAT GAC CCA AGG GAC CTT ATA GGA GAC TTC TCC				1482
156	Glu Asn Ile Leu Asp Asn Asp Pro Arg Asp Leu Ile Gly Asp Phe Ser				
157		330	335	340	
158					
159	AAG GGT TAT CTC TTT CAT ACA GTT GCT GGG AAA CAT CAG GAT TTA AAA				1530
160	Lys Gly Tyr Leu Phe His Thr Val Ala Gly Lys His Gln Asp Leu Lys				
161		345	350	355	
162					
163	TAC ATC TCT CCA GAA ATT ATG GCA TCT GTT TTG AAT GGC AAG TTT GCC				1578
164	Tyr Ile Ser Pro Glu Ile Met Ala Ser Val Leu Asn Gly Lys Phe Ala				
165		360	365	370	
166					
167	AAC CTC ATT AAA GAG TTT GTT ATC ATC GAC TGT CGA TAC CCA TAT GAA				1626
168	Asn Leu Ile Lys Glu Phe Val Ile Ile Asp Cys Arg Tyr Pro Tyr Glu				
169		375	380	385	
170					
171	TAC GAG GGA GGC CAC ATC AAG GGT GCA GTG AAC TTG CAC ATG GAA GAA				1674
172	Tyr Glu Gly Gly His Ile Lys Gly Ala Val Asn Leu His Met Glu Glu				
173		390	395	400	405
174					
175	GAG GTT GAA GAC TTC TTA TTG AAG AAG CCC ATT GTA CCT ACT GAT GGC				1722
176	Glu Val Glu Asp Phe Leu Leu Lys Lys Pro Ile Val Pro Thr Asp Gly				
177		410	415	420	
178					
179	AAG CGT GTC ATT GTT GTG TTT CAC TGC GAG TTT TCT TCT GAG AGA GGT				1770
180	Lys Arg Val Ile Val Val Phe His Cys Glu Phe Ser Ser Glu Arg Gly				
181		425	430	435	
182					
183	CCC CGC ATG TGC CGG TAT GTG AGA GAG AGA GAT CGC CTG GGT AAT GAA				1818
184	Pro Arg Met Cys Arg Tyr Val Arg Glu Arg Asp Arg Leu Gly Asn Glu				
185		440	445	450	
186					
187	TAC CCC AAA CTC CAC TAC CCT GAG CTG TAT GTC CTG AAG GGG GGA TAC				1866
188	Tyr Pro Lys Leu His Tyr Pro Glu Leu Tyr Val Leu Lys Gly Gly Tyr				
189		455	460	465	
190					
191	AAG GAG TTC TTT ATG AAA TGC CAG TCT TAC TGT GAG CCC CCT AGC TAC				1914
192	Lys Glu Phe Phe Met Lys Cys Gln Ser Tyr Cys Glu Pro Pro Ser Tyr				
193		470	475	480	485
194					
195	CGG CCC ATG CAC CAC GAG GAC TTT AAA GAA GAC CTG AAG AAG TTC CGC				1962
196	Arg Pro Met His His Glu Asp Phe Lys Glu Asp Leu Lys Lys Phe Arg				
197		490	495	500	
198					
199	ACC AAG AGC CGG ACC TGG GCA GGG GAG AAG AGC AAG AGG GAG ATG TAC				2010
200	Thr Lys Ser Arg Thr Trp Ala Gly Glu Lys Ser Lys Arg Glu Met Tyr				
201		505	510	515	
202					
203	AGT CGT CTG AAG AAG CTC TGAGGGCGGC AGGACCAGCC AGCAGCAGCC				2058
204	Ser Arg Leu Lys Lys Leu				
205		520			

RAW SEQUENCE LISTING  
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206  
207 CAAGCTTCCC TCCATCCCC TTTACCTCT TTCCTGCAGA GAAACTTAAG CAAAGGGGAC 2118  
208  
209 AGCTGTGTGA CATTTGGAGA GGGGGCCTGG GACTTCCATG CCTTAAACCT ACCTCCCACA 2178  
210  
211 CTCCCAAGGT TGGAGCCCAG GGCATCTTGC TGGCTACGCC TCTTCTGTCC CTGTTAGACG 2238  
212  
213 TCCTCCGTCC ATATCAGAAC TGTGCCACAA TGCAGTTCTG AGCACCGTGT CAAGCTGCTC 2298  
214  
215 TGAGCCACAG TGGGATGAAC CAGCCGGGGC CTTATCGGGC TCCAGCATCT CATGAGGGGA 2358  
216  
217 GAGGAGACGG AGGGGAGTAG AGAAGTTTAC ACAGAAATGC TGCTGGCCAA ATAGCAAAGA 2418  
218  
219 G 2419  
220  
221

## (2) INFORMATION FOR SEQ ID NO:2:

222  
223  
224 (i) SEQUENCE CHARACTERISTICS:  
225 (A) LENGTH: 523 amino acids  
226 (B) TYPE: amino acid  
227 (D) TOPOLOGY: linear  
228

229 (ii) MOLECULE TYPE: protein  
230

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

231  
232  
233 Met Glu Leu Gly Pro Ser Pro Ala Pro Arg Arg Leu Leu Phe Ala Cys  
234 1 5 10 15  
235  
236 Ser Pro Pro Pro Ala Ser Gln Pro Val Val Lys Ala Leu Phe Gly Ala  
237 20 25 30  
238  
239 Ser Ala Ala Gly Gly Leu Ser Pro Val Thr Asn Leu Thr Val Thr Met  
240 35 40 45  
241  
242 Asp Gln Leu Gln Gly Leu Gly Ser Asp Tyr Glu Gln Pro Leu Glu Val  
243 50 55 60  
244  
245 Lys Asn Asn Ser Asn Leu Gln Arg Met Gly Ser Ser Glu Ser Thr Asp  
246 65 70 75 80  
247  
248 Ser Gly Phe Cys Leu Asp Ser Pro Gly Pro Leu Asp Ser Lys Glu Asn  
249 85 90 95  
250  
251 Leu Glu Asn Pro Met Arg Arg Ile His Ser Leu Pro Gln Lys Leu Leu  
252 100 105 110  
253  
254 Gly Cys Ser Pro Ala Leu Lys Arg Ser His Ser Asp Ser Leu Asp His  
255 115 120 125  
256  
257 Asp Ile Phe Gln Leu Ile Asp Pro Asp Glu Asn Lys Glu Asn Glu Ala  
258 130 135 140

INPUT SET: S24135.raw

## \*\*\*\*\* PREVIOUSLY ERRORED SEQUENCES - EDITED \*\*\*\*\*

1403 (2) INFORMATION FOR SEQ ID NO:31:  
1404  
1405 (i) SEQUENCE CHARACTERISTICS:  
1406 (A) LENGTH: 11 amino acids  
1407 (B) TYPE: amino acid  
1408 (D) TOPOLOGY: linear  
1409  
1410 (ii) MOLECULE TYPE: peptide  
1411  
1412 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:  
1413  
1414 Leu Val Phe His Cys Glu Xaa Xaa Xaa Xaa Arg  
1415 1 5 10  
1416  
1417  
1418  
1419  
1420

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**SEQUENCE VERIFICATION REPORT**  
**PATENT APPLICATION US/08/864,955**

DATE: 03/16/98  
TIME: 17:06:09

*INPUT SET: S24135.raw*

Line

Error

Original Text